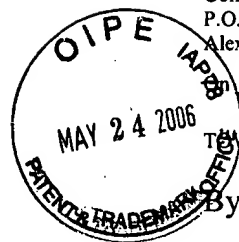


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Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PATENT
TTC No.: 018547-037510US
Client No.: 3206.1

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Ifw



May 22, 2006
TOWNSEND and TOWNSEND and CREW LLP

By: Eleanor J. Taylor

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of:

DAVID BALABAN *et al.*

Application No.: 09/397,494

Filed: September 15, 1999

For: COMPUTER BASED METHOD
FOR PROVIDING A
LABORATORY INFORMATION
MANAGEMENT SYSTEM

Confirmation No.: 8817

Examiner: Jeffrey R. West

Art Unit: 2857

REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Answer mailed on March 22, 2006 to the Appeal Brief filed on January 13, 2006, Applicants respectfully request the Board of Patent Appeals and Interferences to consider the following remarks.

I. STATUS OF CLAIMS:

Claims 1-25 and 33 are canceled.

Claims 26-32 and 34-58 are pending and subject to this appeal. Claims 26-32 and 34-58 were rejected under 35 U.S.C. § 103(a) upon the grounds set forth in the Final Office Action mailed on July 13, 2005.

II. GROUNDS OF REJECTION PRESENTED FOR REVIEW:

A. Claims 26, 31, and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Layne et al., U.S. Patent No. 5,968,731 (Layne et al. '731), in view of Dehlinger, U.S. Patent No. 5,723,320 (Dehlinger '320).

B. Claim 32 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Layne et al. '731 in view of Dehlinger '320 and further in view of Wong et al., U.S. Patent No. 4,875,859 (Wong et al. '859).

C. Claims 26-31, 34-36, 41, 42, 51, 52, 57, and 58 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McCasky Feazel et al., U.S. Patent No. 6,100,030 (McCasky Feazel et al. '030), in view of Layne et al. '731.

D. Claims 32, 43, 44, 49, and 50 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McCasky Feazel et al. '030 in view of Layne et al. '731 and further in view of Wong et al. '859.

E. Claims 37, 38, 53, and 54 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McCasky Feazel et al. '030 in view of Layne et al. '731 and further in view of Laughon, U.S. Patent No. 6,046,165 (Laughon '165).

F. Claims 39, 40, 55, and 56 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McCasky Feazel et al. '030 in view of Layne et al. '731 and further in view of Lipshutz et al., U.S. Patent No. 5,733,729 (Lipshutz '729).

G. Claims 39, 40, 55, and 56 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McCasky Feazel et al. '030 in view of Layne et al. '731 and further in view of Wheelless, Jr. et al., U.S. Patent No. 3,657,537 (Wheelless Jr. et al. '537).

H. Claims 45 and 46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McCasky Feazel et al. '030 in view of Layne et al. '731 and Wong et al. '859 and further in view of Laughon '165.

I. Claims 47 and 48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McCasky Feazel et al. '030 in view of Layne et al. '731 and Wong et al. '859 and further in view of Lipshutz '729.

J. Claims 47 and 48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McCasky Feazel et al. '030 in view of Layne et al. '731 and Wong et al. '859 and further in view of Wheelless Jr. et al. '537.

III. ARGUMENTS:

A. Layne et al. Do Not Suggest Communicating Large Volumes of Data Over a Network

In the Appeal Brief, Applicants establish that claims on appeal are patentable over U.S. Patent No. 5,968,731 (Layne et al. '731) in combination with other references. In particular, Layne et al. '731 teaches communicating over a network, only the results of experiments conducted with conventional 96-well microtiter plates. Layne et al. '731 does not teach or suggest communicating the large volumes of data expected to result from experiments involving probe arrays in accordance with the claimed embodiments.

In response, the Examiner has asserted that Layne et al. '731 does indeed teach transmitting large data volumes, relying upon the following passage from that reference:

TSCs users include laboratory technicians who load materials into automated instruments and supervise their performance on a daily basis (complete runs can amount to ~10,000 tasks, for example, which far surpass the manual scheduling capabilities of humans) and engineers who develop and debug new instruments or look for ways to improve on existing ones. (Emphasis added; col. 9, lines 49-55)

Contrary to the Examiner's assertion, however, this passage does not support the proposition that 10,000 data points would be expected to be transmitted over a computer network under the system of Layne et al. '731. Rather, the above passage simply indicates that automated processing of 96-well microtiter plates could involve the performance of 10,000 separate tasks per run. Such tasks could include solvent measurement steps, solvent dispensing steps, sample measurement steps, sample dispensing steps, mixing, imaging, data analysis, and other discrete steps formerly performed by hand. The excerpt relied upon by the Examiner says nothing about the data ultimately expected to result from such automated analysis of micro-titer plates, and in particular says nothing at all concerning volumes of data expected to result from these steps, that would in turn be communicated over the computer network.

Because the number of steps performed by an automated analysis process does not equate with the number of data points necessarily resulting from such analysis, the Examiner's reliance upon Layne '731 to teach or suggest the communication of large data volumes, is misplaced. For at least this reason, the appealed claims cannot be considered unpatentable in view of Layne et al. '731.

B. The Examiner Provides No Support Regarding Purported Knowledge of One of Skill in the Art

In the Appeal Brief, Applicants establish that the claims on appeal are patentable over Layne et al. '731 in combination with either U.S. Patent No. 5,723,320 (Dehlinger '320) or U.S. Patent No. 6,100,030 (McCasky Feazel et al. '030). In particular, Layne et al. '731 teaches communication of experimental results over a network from a conventional 96-well microtiter plate, while Dehlinger '320 and McCasky Feazel et al. '030 teach use of arrays having probe densities on an order of at least a magnitude larger.

In response to Applicants' arguments that communication of the much larger data volumes would not represent an obvious extension over the prior art, the Examiner simply states:

one having ordinary skill in the art would not consider "transmission of data over a computer network in volumes of at least ten times larger than described in the Layne patent" problematic, let alone a teaching away from a combination with Layne, due to the fact that high-speed data transmission of large amounts of data is known in the art. (Examiner's Answer, page 18, lines 13-17; See also page 24, lines 9-13)

The Examiner provides no evidence in support of this assertion. However, the Board is respectfully reminded that the Court of Appeals for the Federal Circuit has repeatedly emphasized that common knowledge and common sense, even if assumed to derive from the expertise of the USPTO, are not a substitute for authority. *In re Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002); see also *In re Zurko*, 258 F.3d 1379, 59 U.S.P.Q.2d 1693 (Fed. Cir. 2001).

Here, the Examiner is assuming that one of ordinary skill in the art would have understood Layne et al. '731 to contemplate transmitting over a network, volumes of data exceeding by at least ten-fold, and more likely a hundred-fold or more, those ordinarily expected to be generated from 96-well microtiter plates. However, such a generalization is not supported by Layne et al. '731. Indeed, the express goal of the system of Layne et al. '731, is the communication of medical data from remote sites in third world counties, to regions in more advanced nations having the knowledge and the expertise to interpret and assess the data. (See col. 3, lines 8-10; col. 8, lines 6-12).

One of ordinary skill in the art would hardly expect communication of technical medical data over long distances, to remote locations having minimal technical infrastructure, to be easily achieved. Moreover, this task would only be made even more difficult by the need to communicate data from probe arrays, which as understood by Applicants and evident from the prior art relied upon by the Examiner, would generate much greater volumes of information. The inherent difficulty in such reliable communication under the specific conditions described in Layne et al. '731, combined with the huge increase in data volumes required to be communicated, would not lead one of ordinary skill in the art to extend the system of Layne et al. '731 to include data from probe arrays.

Thus, not only is the Examiner's general assertion of the expectation of one of ordinary skill without proper foundation, that general assertion is incorrect. One of ordinary skill in the art would very well have considered communication of data from probe arrays problematic, particularly in the specific context set forth in Layne et al. '731.

Based on the above, it is respectfully asserted that the Examiner's rejection of the claims in view of Layne et al. '731 is not well founded. These claim rejections are improper, and the claims are allowable over the art relied upon by the Examiner.

C. Claim 32 is not Obvious in view of Layne et al. '731 in view of Dehlinger '320 and further in view of Wong et al. '859

The Examiner has correctly pointed out that claim 32 does not require communication of experimental results from a probe array experiment over a computer network. Rather, claim 32 does recite displaying steps of setup and execution of a probe array experiment over a network.

Applicants re-emphasize that the elements of claim 32 are not obvious in view of the combination of references relied upon by the Examiner. In particular, U.S. Patent No. 4,875,859 to Wong et al. ("Wong et al '859) describes only a generic method and apparatus for guiding a user to set up a generic signal measurement system, for example an oscilloscope. There is no teaching or suggestion in this reference, that would motivate its combination with Layne '731 (teaching 96-well microtiter plate experiments) or Dehlinger '320 (teaching probe array experimental techniques).

Based upon the failure of Wong et al. '859 to teach or suggest the communication of probe array experimental data over a computer network, together with the lack of any teaching or

suggestion for the combination of this reference with either Layne et al. '731 or Dehlinger '320, Applicants respectfully assert that claim 32 is patentable over the references relied upon by the Examiner. Rejection of claim 32 is improper and this claim should be allowed.

IV. CONCLUSION:

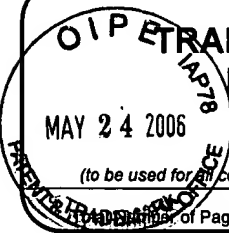
In view of the foregoing, Applicants respectfully submit that the claims are in condition for allowance, and respectfully request that the rejection of these claims be reversed.

Respectfully submitted,




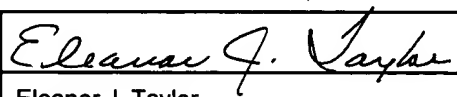
Kent J. Tobin
Reg. No. 39,496

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 415-576-0300
KJT:ejt

	Application Number	09/397,494
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	First Named Inventor	Balaban, David J.
	Art Unit	2857
	Examiner Name	Jeffrey R. West
	Attorney Docket Number	018547-037510US
Total Number of Pages in This Submission		

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
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<input type="checkbox"/> Certified Copy of Priority Document(s)	Remarks The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.	
<input type="checkbox"/> Reply to Missing Parts/ Incomplete Application		
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Townsend and Townsend and Crew LLP		
Signature			
Printed name	Kent J. Tobin		
Date	May 22, 2006	Reg. No.	39,496

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Typed or printed name	Eleanor J. Taylor	Date	May 22, 2006